

Antenna-coupled Microbolometers

- DC Analog of HEB

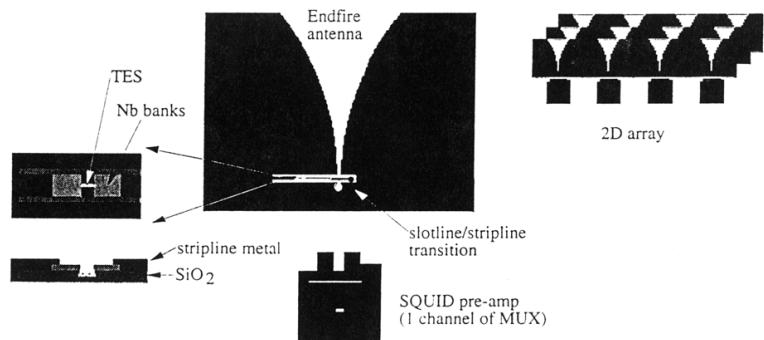
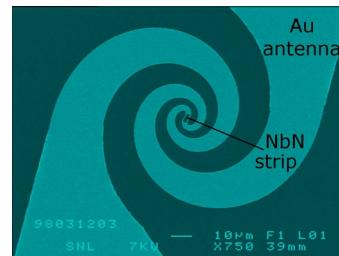


Fig. 7 A schematic of a TES coupled to our proposed antenna structure

- Planar linear array with metallization

- Easy to integrate SQUIDs



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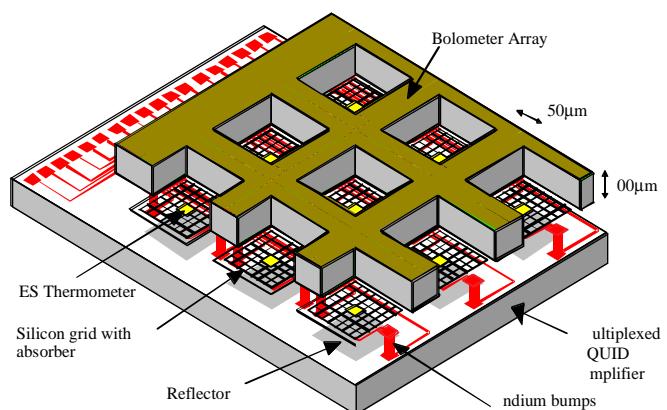
19

Planar Hybrid Bolometer (PHyB) Arrays

Similar to CEA SPIRE concept

- Truly compact; many pixels
- Nearly-filled focal plane

- Technologies:
 - DRIE Bolometers
 - MEMS backshorts
 - Through-wafer SC vias
 - Efficient absorber
 - Integration/bump bonding



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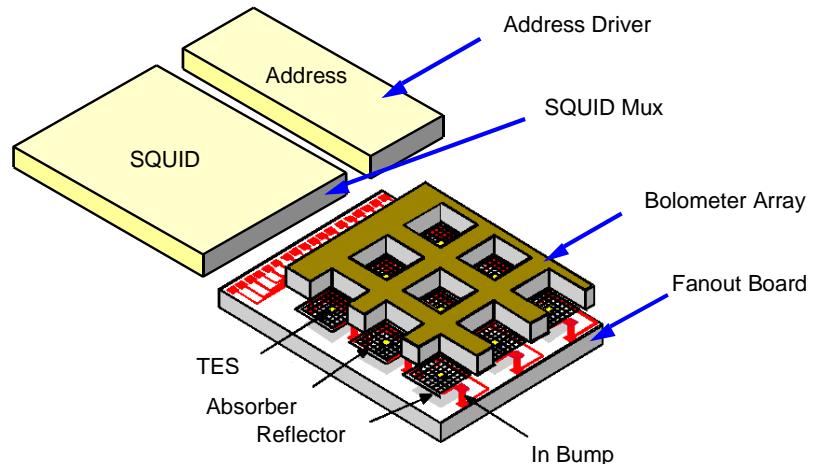
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Prototype PHyB Array

- Keep technology developments separated

- DRIE Bolometers
- Efficient absorber
- Bump bonding

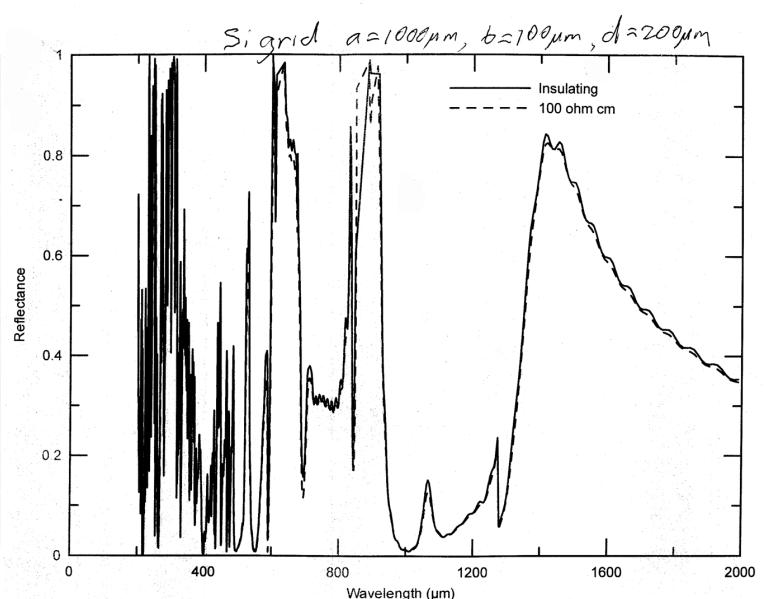
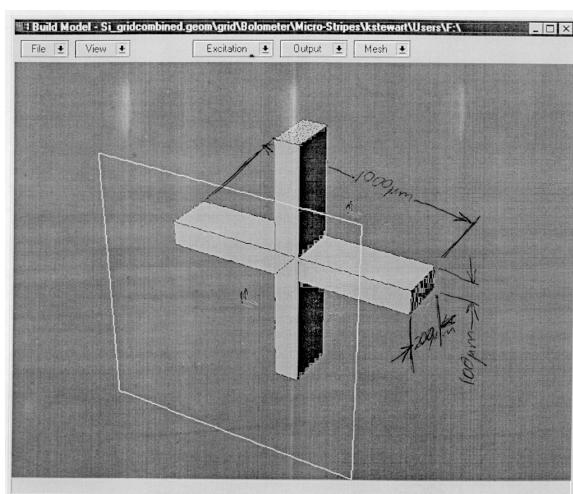


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Problems with PHyB Array



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22